WHAT IS CLAIMED IS:

1.   A method for the estimation of component surplus in assemble-to-order manufacturing operations, the method comprising the steps of:

a) identifying each component required to produce a product;

b) defining a planned level for each component, the planned level defining the quantity at which the component is expected to be available;

c) defining a vector of connect rates for the components;

d) defining an uncancelable level for each component, the uncancelable level defining the quantity of the component that cannot be liquidated without charge;

e) assuming that a selected component is available at its uncancelable level;

f) assuming that all non-selected components are available at their respective planned levels;

g) estimating the mean production for the product; and

h) computing the expected surplus for the selected component using the mean production, the uncancelable level the selected component and the vector of connect rates.